

## Recognized DoD UID Equivalents

A commercial identifier can be considered for use as a DoD UID equivalent if it meets all of these criteria: (1) It contains an enterprise identifier, (2) It uniquely identifies an individual item within an enterprise identifier, product, or part number, and (3) It has an existing DI or AI listed in American National Standard (ANS) MH10.8.2, Data Identifier and Application Identifier Standard. The commercial unique identifiers meeting these criteria that DoD recognizes as UII equivalents are the EAN.UCC Global Individual Asset Identifier (GIAI) for serially managed assets, the EAN.UCC Global Returnable Asset Identifier (GRAI) for returnable assets, the ISO Vehicle Identification Number (VIN) for vehicles, and the Telecommunications Industry Association Electronic Serial Number (ESN) for cellular telephones.

## Wide Area Work Flow

Wide Area Work Flow-Receipt and Acceptance (WAWF-RA) will be the standardized data capture mechanism for transmitting UID data from contractors into the DoD UID registry for new acquisitions of tangible items. For more information on WAWF, visit the training site at <http://www.wawftraining.com>.

## UID Registry

The UID registry will serve as an acquisition gateway to:

- Identify what the item is
- Identify the original owner of the item
- Identify the initial value of the item
- Identify procuring activity and acceptance timing
- Intersect with other systems (e.g., property management, logistics, inventory management)

## Resources & Contact Information

### Department of Defense Unique Identification

[info@uniqueid.org](mailto:info@uniqueid.org)

**Lydia Dawson:** (703) 695-1098

[lydia.dawson@osd.mil](mailto:lydia.dawson@osd.mil)  
(Government Furnished Property, Contracting,  
Valuation, Registry)

**Robert Leibrandt:** (703) 695-1099

[robert.leibrandt@osd.mil](mailto:robert.leibrandt@osd.mil)  
(Engineering, Logistics, International Standards,  
Program Management)



### UID Training from Defense Acquisition University

**West Region:** (619) 524-4800

**Midwest Region:** (937) 781-1025

**South Region:** (256) 722-1100

**Mid-Atlantic Region:** (240) 895-7344

**Capital & Northeast Region:** (703) 805-2764

**e-Mail:** [uidprogramtraining@dau.mil](mailto:uidprogramtraining@dau.mil)

For more information on the Defense Acquisition University, call 1-888-284-4906 or visit the DAU Web site at <http://www.dau.mil>

UID background materials, previous UID policy memos, and implementation guidelines are available at <http://www.acq.osd.mil/dpap/uid>



DEPARTMENT  
OF DEFENSE

UNIQUE  
IDENTIFICATION  
OF ITEMS

*The Path to  
Knowledge Enablement*



# UNIQUE IDENTIFICATION OF ITEMS

## What is Unique Identification of Items?

Unique Identification (UID) is a system of distinguishing one object from another, allowing DoD to track identical objects separately. UID of items requires that qualifying items have a data matrix either directly inscribed on them or on a permanent machine-readable label affixed to them. The data matrix contains a set of data elements that can be concatenated to form a Unique Item Identifier (UII). The UII identifies an individual item distinctly from all other individual items that DoD buys and owns. This information allows DoD to associate valuable business intelligence with an item throughout its life cycle and accurately capture and maintain data for valuation and tracking of items.

## What a UII Is and Isn't:

### A UII Is:

- A globally unique, unambiguous item identifier.
- Permanent through life.
- Created by concatenating a string of specific data elements.
- A means of creating and utilizing life cycle data.

### A UII Is Not:

- A physical method of communicating data, such as radio frequency identification (RFID) tags, contact memory buttons, linear bar codes, or 2-D data matrices.
- A replacement for the national stock number.
- Intelligent stand-alone data that contain information about an item.

## What does the UII Mark Look Like?

DoD has adopted a high density 2-D matrix style bar code that can encode up to 3116 characters called Data Matrix ECC 2000. The symbol is built on a square grid arranged with a finder pattern around the perimeter of the bar code symbol. It is not possible for the human eye to read what has been encoded in the data matrix symbol (see example) so the matrices must be both written and read using Automated Identification Technology (AIT).



## How is the DoD UII Mark Read?

The UII itself is not normally marked in the data matrix because it can be formed from its component data elements each time the data matrix is

read.<sup>1</sup> Instead, the data elements that make up the UII are marked within the data matrix, and are read using an automated reader. When the mark is read, the data elements must be described to the AIT reader with prefixes used to represent instructions to the reader. These "prefixes" are known as data qualifiers, which are specified characters that immediately precede a data field and define the general category or intended use of the data that follow.

Data qualifiers can take one of three forms in commercial use: alphanumeric Data Identifiers (DI), numeric Application Identifiers (AI), or alpha Text Element Identifiers (TEI) (see next page). For additional information on data qualifiers to be used in DoD UID, please refer to the *DoD Guide to Uniquely Identifying Items* at: <http://www.acq.osd.mil/dpap/uid>.

## How is a DoD UII Built?

There are two methods to construct the UII for an item: Construct # 1, with serialization within the enterprise identifier, and Construct # 2, with serialization within the original part number, lot number or batch number (within the enterprise identifier). Which construct your enterprise uses depends on your manufacturing processes.

In Construct # 1, the UII is built by adding a unique serial number after your enterprise's identification (EID)—either a CAGE/NCAGE, DUNS, or EAN.UCC number. There is no need to mark the data matrix with the Issuing Agency Code (IAC); so long as the proper data qualifier is used before your EID, the concatenated UII will have the correct IAC. Construct # 2 is also comprised of your EID, but it is followed by the original part number, lot number, or batch number, and then by the serial number. The current part number is not part of either UII construct; it is an additional data element.

<sup>1</sup>If the enterprise chooses to mark the concatenated UII as a discrete data element on the item, the component data elements must also be marked on the item as discrete data elements, in addition to the concatenated UII.

## What Data Qualifiers are Used?

Data Type	Data Qualifier		
Enterprise ID Type	DI	AI	TEI
CAGE/NCAGE (IAC = D)	17V		CAG;MFR or SPL
DUNS (IAC = UN)	12V		DUN
EAN.UCC (IAC = 0-9)		95	EUC
Other Data Elements	DI	AI	TEI
Serial No. w/in Enterprise Identifier			SER or UCN
Serial No. w/in Original Part No.	S	21	SEQ
Original Part Number	1P	1	PNO
Unique Identifier (with IAC)	25S	8004	UID
Unique Identifier (without IAC)	18S		USN or UST
Current Part Number	30P	240	PNR

## What Data Elements are Needed?

	UII Construct	
	#1	#2
For use when items are serialized within the:	Enterprise	Part Number
The UII is derived by concatenating these data elements IN ORDER:*	IAC* Enterprise ID Serial Number	IAC* Enterprise ID Original Part/Lot/ Batch Number Serial Number
Data that may be identified on assets, but not part of the UII:	Current Part Number	Current Part Number

\*IAC—The Issuing Agency Code represents the registration authority that issued the enterprise identifier (e.g., Dun and Bradstreet, EAN.UCC). In the concatenated UII, the IAC can be

## Sample UII Constructs

**UII Construct #1<sup>1</sup>**  
MFR OCVA5  
SER 786950  
D O C V A 5 7 8 6 9 5 0  
IAC EID Serial No.



**sample data matrix**

**UII Construct #2<sup>2</sup>**  
(12V)194532636  
(1P)1234  
(S)786950  
UN1945326361234786950  
IAC EID Orig. Serial  
Part No. No.



<sup>1</sup> Using TEI data qualifiers <sup>2</sup> Using DI data qualifiers

